

# **DRAFT**

# **Limpp Community Lake**

## **Ten Year Area Management Plan**

### **FY 2015-2024**



**To submit a comment on this document,  
click on the following link:**

<http://mdc.mo.gov/node/19221?ap=5508>

## OVERVIEW

- **Official Area Name:** Limpp Community Lake, #5508
- **Year of Initial Acquisition:** 1955
- **Acreage:** 70 acres
- **County:** Gentry
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**
  - A. Strategic Direction**

The primary purpose of Limpp Community Lake is to provide high-quality angling for area patrons. The area is also managed for hiking and wildlife viewing.
  - B. Desired Future Condition**

The desired future condition for Limpp Community Lake is to provide a “close-to-home” location for King City area residents to enjoy high-quality fishing, hiking and wildlife viewing opportunities.
  - C. Federal Aid Statement:** N/A

## GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
  - A. Priority Areas:** None
  - B. Natural Areas:** None
- II. Important Natural Features and Resources**
  - A. Species of Conservation Concern:** Species of conservation concern are not known from this site, but are found in the surrounding area. Area Managers should consult annually with the Natural History Biologist.
  - B. Caves:** None
  - C. Springs:** None
- III. Existing Infrastructure**
  - 1 gravel parking lot
  - 1 ADA privy
  - 1 concrete boat ramp
  - Approximately 1.5 miles of field access trails
- IV. Area Restrictions or Limitations**
  - A. Deed Restrictions or Ownership Considerations:** None
  - B. Federal Interests:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the

land. Other uses may be acceptable and must be assessed in each specific situation.

**C. Easements:** Public utility easements occur along Route CC on the area's west boundary.

**D. Cultural Resources:** No known cultural resources.

**E. Hazards and Hazardous Materials:** None observed.

**F. Endangered Species:** Endangered Species are not known from this site, but are found in the surrounding area. Area Managers should consult annually with the Natural History Biologist.

**G. Boundary Issues:** Establishing accurate and identifiable boundary markers is a priority for this property.

## MANAGEMENT CONSIDERATIONS

### V. Terrestrial Resource Management Considerations

#### **Challenges and Opportunities:**

- 1) The Missouri Department of Conservation (the Department) owns a narrow buffer of land around the 29-acre lake. Species composition consists mostly of undesirable species, including honey locust, Osage orange, elm and eastern red cedar. Other species, such as hackberry, cottonwood, boxelder, black walnut, black oak and bitternut hickory, are also present. Shrub species include wild plum, sumac and autumn olive. The understory consists largely of brushy thorny vegetation. The narrowness of this land makes any management activities a challenge.
- 2) A grass field access trail is maintained around the outside of the lake to allow anglers multiple access points. The only constructive terrestrial management opportunities that exist are related to this access trail. Management opportunities for this area include reducing undesirable woody vegetation and promoting more beneficial native vegetation adjacent to the access trail.

**Management Objective 1:** Reduce undesirable woody cover along the field access trail.

**Strategy 1:** As opportunity arises, remove undesirable trees species and encourage the growth of desirable tree and shrub species.

### VI. Aquatic Resource Management Considerations

#### **Challenges and Opportunities:**

- 1) Only a small portion of the lake's watershed is protected. The Department currently owns 10 percent of the 598 acres in the watershed (Figure 2). The lake receives high rates of nutrient and sediment inputs from private pastureland (42%

of land use) and cropland (29% of land use). There are other unknown pollutants that likely enter the lake from urban land uses (15%). Over the years, the lake has developed shallow areas with excessive aquatic vegetation, poor water quality, and a high potential for fish kills.

- 2) The sportfish community has faced poor habitat conditions and introductions of nuisance fish species (common carp, grass carp, gizzard shad). A renovation effort in 1978 involving draining the lake, treating it with rotenone, and restocking it with sportfish provided only short-term improvements to the fishery.
- 3) Large investments to improve the fishery (i.e., deepening the lake, renovating the fish community and improving the facilities) would be most effective when a larger portion of the watershed has long-term management practices that minimize sediment inputs and promote better water quality in the lake.
- 4) The size of the lake, relative to the size of the watershed, is desirable. This means lake levels will generally be maintained with minimal fluctuations and fewer flushing overflows. These conditions promote stable and productive shoreline areas, and reasonable rates of sedimentation.
- 5) One highlight of the current (2014) fishery is the relatively large size of largemouth bass (i.e., a larger percentage of fish over 18 inches) collected in periodic surveys.
- 6) Concerns with the fishery include small and slow-growing panfish (bluegill and crappie). Some factors responsible for the poor growth include competition with abundant gizzard shad, a lack of adequate aquatic vegetation, high turbidity, and the presence of nuisance species (grass carp and common carp).

**Management Objective 1:** As opportunities arise, minimize soil loss and chemical/nutrient runoff to the lake from both agricultural and urban sources in the watershed.

**Strategy 1:** Promote soil conservation practices with landowners in the watershed.

**Strategy 2:** Meet with King City officials to increase awareness of the watershed issues at Limpp Lake and to identify any long-term city plans that may affect the fishery (e.g., urban expansion, storm sewer improvements, development of parks or other green space).

**Management Objective 2:** Use appropriate fisheries management tools to maintain and improve the quality of fishing.

**Strategy 1:** Continue regular “put-n-take” stocking with channel catfish. The current stocking is conducted every two years at a rate of 15 fish per acre.

**Strategy 2:** Promote better catch rates with periodic placements of brush piles or artificial fish attractors that help concentrate sportfish and focus anglers.

**Strategy 3:** Experiment with specialty stockings of fish species that will better utilize the abundant forage base of gizzard shad and small, stunted panfish (e.g., hybrid striped bass, flathead catfish).

**Strategy 4:** If long-term sediment and nutrient inputs to the lake are significantly reduced, evaluate the feasibility of lake renovation to remove nuisance fish species and enhance fish habitat.

## **VII. Public Use Management Considerations**

### **Challenges and Opportunities:**

- 1) Trash is a chronic problem in the parking lot and along the shore where anglers concentrate.
- 2) A grass trail has been maintained around the lake since about 2005 to provide multiple access sites for shore anglers and for local patrons to hike. Despite regular mowing, encroachment of trees and shrubs into the trail increases maintenance efforts.

### **Management Objective 1:** Keep the area well-maintained.

**Strategy 1:** Continue to regularly mow the high-use areas near the parking lot, boat ramp, dam and trail.

**Strategy 2:** Pick up trash prior to each mowing.

**Strategy 3:** Encourage local groups to adopt the area and conduct regular cleanup efforts.

**Strategy 4:** Maintain signs and reasonable enforcement efforts that effectively discourage littering.

### **Management Objective 2:** Maintain a grass trail around the lake that invites regular use by anglers, wildlife viewers and recreational users.

**Strategy 1:** Mow the trail at least three times per year.

**Strategy 2:** Maintain a trail width of at least 10 feet with mowing and other controls on woody vegetation.

**Strategy 3:** Address chronic wet/muddy areas of the trail with rock and culvert placements.

## **VIII. Administrative Considerations**

### **Challenges and Opportunities:**

- 1) Boundary fence is shared with two adjoining landowners. No known fencing agreements are in place.

- 2) Maintenance of boundary fence is important, especially given the amount compared to the size of the area, as well as its proximity to the lake shoreline.

**Management Objective 1:** Work with neighboring landowners, as need arises, to ensure the maintenance of adequate boundary fencing.

**Management Objective 2:** Work with local authorities, as need arises, to maintain right-of-ways bordering Department areas.

## MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
<b>Aquatic Resources Management</b>										
<b>Objective 1</b>										
<b>Strategy 2</b>	X					X				
<b>Objective 2</b>										
<b>Strategy 1</b>		X		X		X		X		X
<b>Strategy 2</b>		X		X		X		X		X
<b>Strategy 3</b>	X	X	X	X	X	X				

## APPENDICES

### Area Background:

Limpp Community Lake is located in southwest Gentry County, less than a mile northwest of King City on Highway CC. The lake was originally built by Rufus Limpp in 1940 as a water supply for King City. The Department bought the lake in 1956, immediately deepened the basin and raised the dam to increase the water level by about 3 feet. The increased level resulted in a 30-acre lake, which was stocked in 1957 with largemouth bass, bluegill and channel catfish. The lake was opened to the public in 1959 and quickly became a very popular fishing spot.

Relatively shallow depths and high inputs of sediment and nutrients have resulted in chronic problems with nuisance vegetation, fish kills, and loss of lake surface area. The need for more compatible land practices in the watershed has been recognized since the lake was purchased by the Department.

In addition to regular stocking of channel catfish, attempts to improve the fishery have included stocking of several different species including redear sunfish (1971,1974), and grass carp (1984, 1988). Other undocumented stockings have included black bullhead, gizzard shad, white crappie, black crappie and common carp.

### Current Land and Water Types:

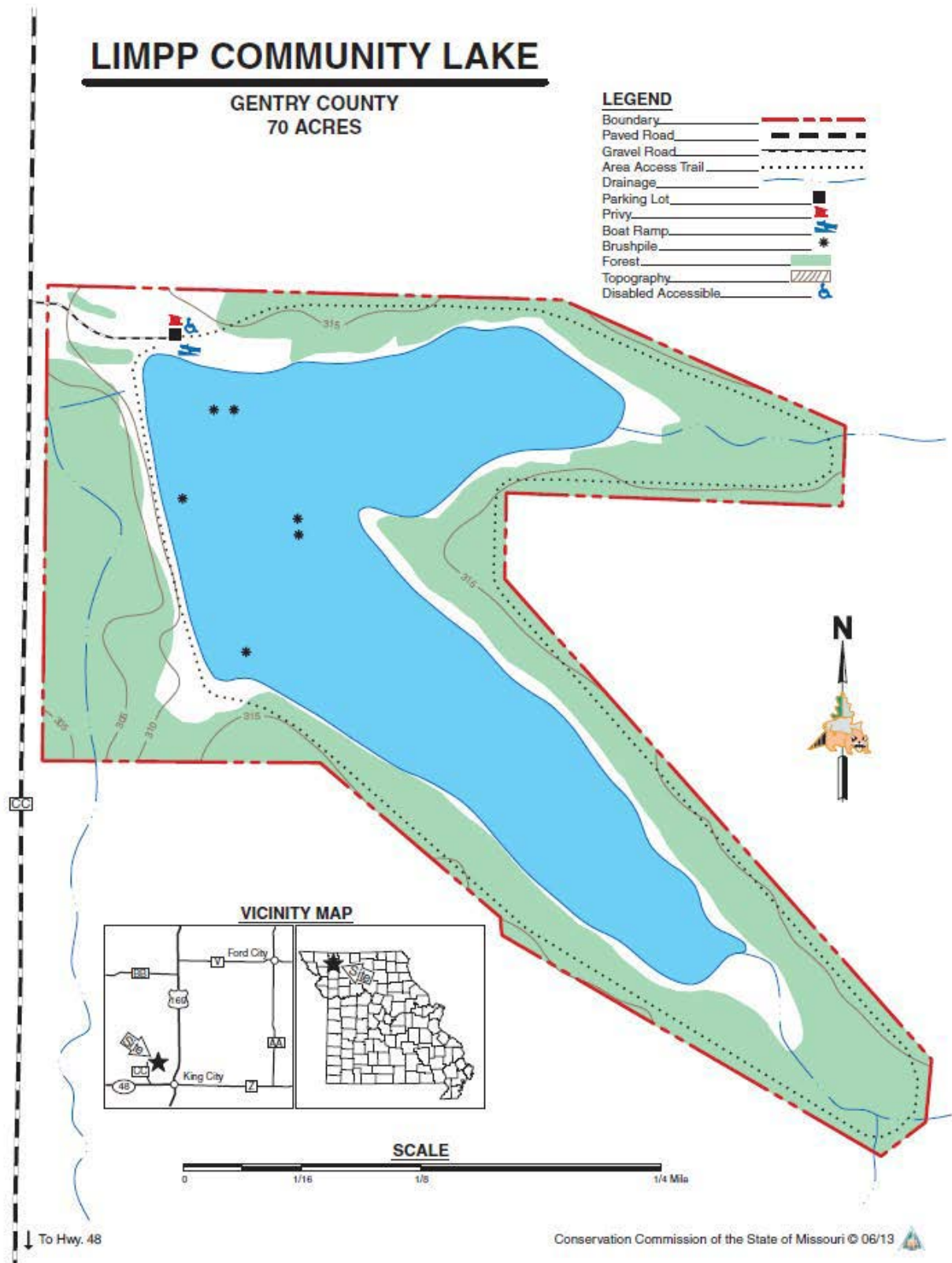
Land/Water Type	Acres	% of Area
Old Field	30	43
Impoundments	29	41
Woodland	11	16
<b>Total</b>	<b>70</b>	<b>100</b>

### Maps:

Figure 1: Area Map

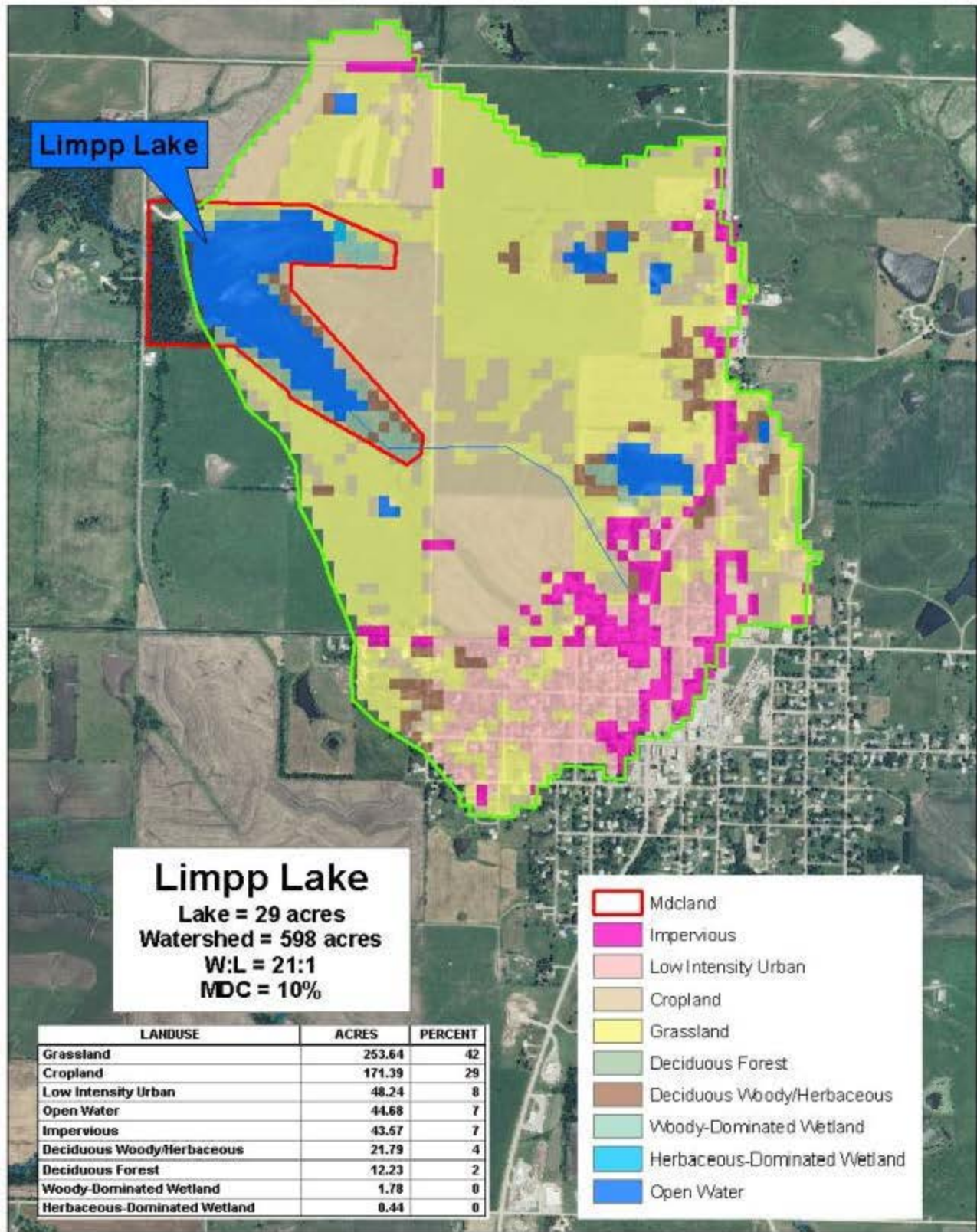
Figure 2: Land Uses in Limpp Community Lake Watershed (Green Boundary)

**Figure 1: Area Map**





**Figure 2: Land Uses in Limpp Community Lake Watershed (Green Boundary)**



**To submit a comment on this document,  
click on the following link:**

<http://mdc.mo.gov/node/19221?ap=5508>